

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027209**Date Inspected:** 21-Feb-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

13E PP118.2 E5 Vent Hole (Exterior)

This QA Inspector observed ABF welder Salvador Sandoval (ID 2202) pre-heat the joint to 66 degrees C prior to performing Shielded Metal Arc Welding (SMAW) in the (1G) flat position on the vent hole at 13E PP118.2 E5 on the exterior of the OBG. This QA Inspector observed the QC Inspector monitor the inter-pass temperatures and the welding to ensure the parameters were in compliance pertaining to ABF-WPS-D1.5-1050A-CU. The parameters were recorded as (Amperes=126) utilizing a 3.2 mm E7018-H4R electrode. The welder was observed grinding and blending the start/stop edges of the work between passes and throughout the joints depth. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general conformance with the contract specifications. This joint is a Seismic Performance Critical Member (SPCM).

QC NDT (Exterior)

This QA Inspector randomly observed ABF Quality Control Inspector Mr. John Pagliero performing Ultrasonic Testing (UT) inspection on "A4" of 13E/14E on the exterior of the OBG. This QA Inspector observed that Mr. Pagliero detected no rejectable indications. The deck at this location is 20mm thick and is a Seismic

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Performance Critical Member (SPCM).

QA NDT (Interior)

This QA Inspector performed a Magnetic Particle (MT) Inspection on “A4” at 13E/14E on the exterior of the OBG. This QA Inspector performed the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of the welds at the locations listed above. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

13E PP118.5 E5 Vent Hole (Exterior)

This QA Inspector observed QC Inspector Sal Merino perform joint fit-up operations on an “A” deck vent hole on the exterior of the OBG located at 13E PP118.5 E5. This QA Inspector verified the B-U4a complete Joint penetration (CJP) fit-up and found it to be satisfactory and in conformance with the welding procedure. This QA Inspector randomly observed ABF welder Salvador Sandoval (ID 2202) pre-heat the vent hole to 66°C prior to performing SMAW in the (1G) flat position. This QA Inspector observed the QC Inspector monitoring the inter-pass temperatures and the welding to ensure the parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU. The parameters were recorded as (Amperes=128) utilizing a 3.2 mm E7018-H4R electrode. This QA Inspector randomly observed the ABF welder grind and blend the start and stop areas of the weld throughout the joints depth. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance with the contract specifications.

FW Spencer Pipe Welding (Exterior)

This QA Inspector observed F.W. Spencer welder Damian LLanos ID# (6645) performing Shielded Metal Arc Welding (SMAW) in all positions on schedule 80 4” domestic water pipe and 2.5” compressed air pipe at the locations listed below. This QA Inspector verified the fit up of the joints and found it to be satisfactory and randomly observed QC Inspector Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed utilizing 6010 electrodes in the root pass with the balance using 7018 electrodes. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work appears to be in general conformance with the contract documents.

38/2.5/73/NW, 38/4/73/NW

39/2.5/75/NW, 39/4/75/NW

40/2.5/77/NW, 40/4/77/NW

33/2.5/63/NW, 33/4/63/NW

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Summary of Conversations:

The were no pertinent conversations to report.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By: Frey,Doug

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer